

100

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<211> 1910

<212> DNA

<213> Zea mays

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<213> Zea mays

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Thr Phe Phe Thr Asp Leu His Tyr Ile Leu Arg Val Thr Ala Ala Gly
65 70 75 80
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Phe Lys Phe His Leu Met Leu Asn Ala Asp Arg Glu Phe Leu Ala Gln
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Lys Thr Ala Pro His Arg Asp Phe Tyr Asn Val Arg Lys Val Asp Thr
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His Val His His Ser Ala Cys Met Asn Gln Lys His Leu Leu Arg Phe
130 135 140
Ile Lys Ser Lys Leu Arg Lys Glu Pro Asp Glu Val Val Ile Phe Arg
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Asp Gly Thr Tyr Met Thr Leu Lys Glu Val Phe Glu Ser Leu Asp Leu
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Thr Gly Tyr Asp Leu Asn Val Asp Leu Leu Asp Val His Ala Asp Lys
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Ser Thr Phe His Arg Phe Asp Lys Phe Asn Leu Lys Tyr Asn Pro Cys
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Gly Gln Ser Arg Leu Arg Glu Ile Phe Leu Lys Gln Asp Asn Leu Ile
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Gln Gly Arg Phe Leu Ala Glu Leu Thr Lys Gln Val Phe Ser Asp Leu
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Arg Lys Gln Ser Glu Trp Asp Gln Leu Ala Ser Trp Ile Val Asn Asn
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Glu Leu His Ser Gly Asn Val Val Trp Leu Val Gln Ile Pro Arg Leu
275 280 285
Tyr Asn Val Tyr Lys Glu Met Gly Ile Val Thr Ser Phe Gln Asn Leu

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Pro Thr Pro Glu Gln Trp Thr Asn Val Phe Asn Pro Ala Phe Ser Tyr		
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Tyr Ala Tyr Tyr Cys Tyr Ala Asn Leu Phe Thr Leu Asn Lys Leu Arg		
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Glu Ser Lys Gly Met Thr Thr Ile Lys Phe Arg Pro His Ala Gly Glu		
385	390	395 400
Ala Gly Asp Val Asp His Leu Ala Ala Thr Phe Leu Leu Cys His Asn		
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Ile Ser His Gly Ile Asn Leu Arg Lys Ser Pro Val Leu Gln Tyr Leu		
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Tyr Tyr Leu Gly Gln Ile Gly Leu Ala Met Ser Pro Leu Ser Asn Asn		
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Ser Leu Phe Leu Asp Tyr His Arg Asn Pro Phe Pro Thr Phe Phe Gln		
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Arg Gly Leu Asn Val Ser Leu Ser Thr Asp Asp Pro Leu Gln Ile His		
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Leu Thr Lys Glu Pro Leu Val Glu Glu Tyr Ser Ile Ala Ala Ser Leu		
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Trp Lys Leu Ser Ser Cys Asp Leu Cys Glu Ile Ala Arg Asn Ser Val		
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Tyr Gln Ser Gly Phe Ser His Ala Leu Lys Ala His Trp Ile Gly Lys		
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Asn Tyr Phe Lys Arg Gly Pro Ala Gly Asn Asp Ile His Arg Thr Asn		
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Val Pro His Ile Arg Val Gln Phe Arg Glu Met Ile Trp Arg Asn Glu		
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 <213> Oryza sativa

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<213> *Oryza sativa*

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Asn	Val	Asp	Leu	Leu	Asp	Val	His	Ala	Asp	Lys	Ser	Thr	Phe	His	Arg
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Phe	Asp	Lys	Phe	Asn	Leu	Lys	Tyr	Asn	Pro	Cys	Gly	Gln	Ser	Arg	Leu
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Glu Met Gly Thr Ile Asn Ser Phe Gln Asn Leu Leu Asp Asn Ile Phe 210 215 220		
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His Leu Ala Ala Ala Phe Leu Thr Ser His Asn Ile Ala His Gly Val 325 330 335		
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Tyr His Arg Asn Pro Phe Pro Thr Phe Phe Leu Arg Gly Leu Asn Val 370 375 380		
Ser Leu Ser Thr Asp Asp Pro Leu Gln Ile His Leu Thr Lys Glu Pro 385 390 395 400		
Leu Val Glu Glu Tyr Ser Ile Ala Ala Ser Leu Trp Lys Leu Ser Ser 405 410 415		
Cys Asp Leu Cys Glu Ile Ala Arg Asn Ser Val Tyr Gln Ser Gly Phe 420 425 430		
Ser His Arg Leu Lys Ser His Trp Ile Gly Arg Asn Tyr Tyr Lys Arg 435 440 445		

Gly His Asp Gly Asn Asp Ile His Gln Thr Asn Val Pro His Ile Arg
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 35 40 45
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<213> Triticum aestivum

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Arg Leu Tyr Asn Val Tyr Gln Xaa Lys Trp Gly Leu Leu His His Phe
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Lys Asn Phe Leu Gly Gln His Phe Pro Pro Pro Val Trp Arg Leu Leu
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agggagtggt gcgtcgctct cccaagggtg gagctccacg cccacctcaa cggctccgctc 180
cgcaactcca ccctcctaga acttgcaaaa catctaggcg acaaaggagt cattgttttt 240
gaagatgtta aggatgtgat catgaagagt gatagatctc ttccagagtg tttcaagctt 300
tttgatctgt ttcataact tacaactgat catgatacag taacaaggat tgctaaggag 360
gttgtagaag attttgctgc agagaatggt gtatatgttg aaataagaac ancacctaag 420
aacantgagg canaggggat gaccaagang tcttacatgg atgctgttat naaggtctga 480
aagcacttga agatttgatg tncaaattat tgggtccnat ttcagnacaa atgaaacnct 540
tantcnaact tttgatgggn ccnaaganan gnaannntat tttagncctt ctannattgt 600
tccccanaa atttggttna tggaccgtta cccaccctga antatggcca aggttcntgn 660
nttgcttcg gnt 673

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<211> 46
<212> PRT
<213> Zea mays

<400> 10
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1 5 10 15

Gly Ser Val Arg Asn Ser Thr Leu Leu Glu Leu Ala Lys His Leu Gly
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Asp Lys Gly Val Ile Val Phe Glu Asp Val Lys Asp Val Ile
35 40 45

<210> 11
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<212> DNA
<213> Glycine max

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<222> (526)
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tacatttact ttgcaatctc gagtccttca cacaaaatct tttcaatata ataaatcaaa 180
atgtgtggtg aaaatatgaa gcagttcctc aaggagctcc caaaatgtga gcatcacatt 240
catatcgagg ggtctctgtc tccagctctg ctggttcgaat tggcaaagac aaacaacatc 300
gcccttcccg actctgcggc tgatgcctct ttcaaattct cccaagaact cgagtctcgc 360
tacgaacggt ttacttctct caacgatttc ctccattact attacattgg catgtcaagt 420
gttaataaac ccctggcgac taatgaaaag cttggcctat ggaatatctc acaanangaa 480
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<211> 37
<212> PRT
<213> Glycine max

<400> 12
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1 5 10 15

Gly Ser Leu Ser Pro Ala Leu Leu Phe Glu Leu Ala Lys Thr Asn Asn
20 25 30

Ile Ala Leu Pro Asp
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<210> 13
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<212> DNA
<213> Zea mays

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caactttgcc	gggtngggttn	gaataggncg	ggttgaaata	attagacctt	aagtcancca	360
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 <212> PRT
 <213> Zea mays

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 <223> XAA = any amino acid

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 35 40 45
 Asn Pro Phe Thr Tyr Val Pro Glu Pro Lys Ser Glu His Val Phe Gln
 50 55 60
 Thr Val Asp Gly Val Ile His Val Tyr Ala Asp Lys Asp Cys Thr Glu
 65 70 75 80
 Ser Ile Tyr Pro Val Ala Asp Ala Thr Thr Phe Phe Thr Asp Leu His
 85 90 95
 Tyr Ile Leu Arg Val Thr Ala Ala Gly Asn Thr Arg Thr Val Cys His
 100 105 110
 Asn Arg Leu Asn Leu Leu Glu His Lys Phe Lys Phe His Leu Met Leu
 115 120 125
 Asn Ala Asp Arg Glu Phe Leu Ala Gln Lys Thr Ala Pro His Arg Asp
 130 135 140
 Phe Tyr Asn Val Arg Lys Val Asp Thr His Val His His Ser Ala Cys
 145 150 155 160
 Met Asn Gln Lys His Leu Leu Arg Phe Ile Lys Ser Lys Leu Arg Lys
 165 170 175
 Glu Pro Asp Glu Val Val Ile Phe Arg Asp Gly Thr Tyr Met Thr Leu
 180 185 190
 Lys Glu Val Phe Glu Ser Leu Asp Leu Thr Gly Tyr Asp Leu Asn Val
 195 200 205

Asp Leu Leu Asp Val His Ala Asp Lys Ser Thr Phe His Arg Phe Asp
 210 215 220
 Lys Phe Asn Leu Lys Tyr Asn Pro Cys Gly Gln Ser Arg Leu Arg Glu
 225 230 235 240
 Ile Phe Leu Lys Gln Asp Asn Leu Ile Gln Gly Arg Phe Leu Ala Glu
 245 250 255
 Leu Thr Lys Gln Val Phe Ser Asp Leu Ser Ala Ser Lys Tyr Gln Met
 260 265 270
 Ala Glu Tyr Arg Ile Ser Ile Tyr Gly Arg Lys Gln Ser Glu Trp Asp
 275 280 285
 Gln Leu Ala Ser Trp Ile Val Asn Asn Glu Leu His Ser Gly Asn Val
 290 295 300
 Val Trp Leu Val Gln Ile Pro Arg Leu Tyr Asn Val Tyr Lys Glu Met
 305 310 315 320
 Gly Ile Val Thr Ser Phe Gln Asn Leu Leu Asp Asn Ile Phe Val Pro
 325 330 335
 Leu Phe Glu Val Thr Ile Asp Pro Ala Ser His Pro Gln Leu His Val
 340 345 350
 Phe Leu Lys Gln Val Val Gly Leu Asp Leu Val Asp Asp Glu Ser Lys
 355 360 365
 Pro Glu Arg Arg Pro Thr Lys His Met Pro Thr Pro Glu Gln Trp Thr
 370 375 380
 Asn Val Phe Asn Pro Ala Phe Ser Tyr Tyr Ala Tyr Tyr Cys Tyr Ala
 385 390 395 400
 Asn Leu Phe Thr Leu Asn Lys Leu Arg Glu Ser Lys Gly Met Thr Thr
 405 410 415
 Ile Lys Phe Arg Pro His Ala Gly Glu Ala Gly Asp Val Asp His Leu
 420 425 430
 Ala Ala Thr Phe Leu Leu Cys His Asn Ile Ser His Gly Ile Asn Leu
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 Arg Lys Ser Pro Val Leu Gln Tyr Leu Tyr Tyr Leu Gly Gln Ile Gly
 450 455 460
 Leu Ala Met Ser Pro Leu Ser Asn Asn Ser Leu Phe Leu Asp Tyr His
 465 470 475 480
 Arg Asn Pro Phe Pro Thr Phe Phe Gln Arg Gly Leu Asn Val Ser Leu
 485 490 495
 Ser Thr Asp Asp Pro Leu Gln Ile His Leu Thr Lys Glu Pro Leu Val
 500 505 510
 Glu Glu Tyr Ser Ile Ala Ala Ser Leu Trp Lys Leu Ser Ser Cys Asp
 515 520 525

Leu Cys Glu Ile Ala Arg Asn Ser Val Tyr Gln Ser Gly Phe Ser His
530 535 540

Ala Leu Lys Ala His Trp Ile Gly Lys Asn Tyr Phe Lys Arg Gly Pro
545 550 555 560

Ala Gly Asn Asp Ile His Arg Thr Asn Val Pro His Ile Arg Val Gln
565 570 575

Phe Arg Glu Met Ile Trp Arg Asn Glu Met Lys Leu Val Tyr Ser Asp
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Asn Glu Ile Leu Ile Pro Asp Glu Leu Asp Leu
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<210> 15

<211> 2782

<212> DNA

<213> Oryza sativa

<400> 15

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<212> PRT
<213> Oryza sativa

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35 40 45
Leu His Gly Ala Gln His Asn Pro Val Ala Ala Asp Ile Leu Arg Lys
50 55 60
Glu Pro Glu His Glu Thr Phe Ser Arg Ile Asn Ile Thr Ala Val Glu
65 70 75 80
Thr Pro Ser Pro Asp Glu Ile Glu Ala Tyr Lys Val Leu Gln Lys Cys
85 90 95
Leu Glu Leu Arg Glu Lys Tyr Met Phe Arg Glu Glu Val Ala Pro Trp
100 105 110
Glu Lys Glu Ile Ile Thr Asp Pro Ser Thr Pro Lys Pro Asn Pro Asn
115 120 125
Pro Phe Tyr Tyr Glu Gln Gln Thr Lys Thr Glu His His Phe Glu Met
130 135 140
Val Asp Gly Val Ile His Val Tyr Pro Asn Lys Asp Ala Lys Glu Arg
145 150 155 160
Ile Tyr Pro Val Ala Asp Ala Thr Thr Phe Phe Thr Asp Met His Tyr
165 170 175
Ile Leu Arg Val Leu Ala Ala Gly Asp Ile Arg Thr Val Cys Tyr Lys
180 185 190
Arg Leu Asn Leu Leu Glu Gln Lys Phe Asn Leu His Leu Met Val Asn
195 200 205
Ala Asp Arg Glu Leu Leu Ala Gln Lys Ala Ala Pro His Arg Asp Phe
210 215 220
Tyr Asn Val Arg Lys Val Asp Thr His Val His His Ser Ala Cys Met
225 230 235 240

Asn Gln Lys His Leu Leu Arg Phe Ile Lys Ser Lys Leu Arg Lys Glu
 245 250 255
 Pro Asp Glu Val Val Ile Phe Arg Asp Gly Thr Tyr Leu Thr Leu Lys
 260 265 270
 Glu Val Phe Glu Ser Leu Asp Leu Thr Gly Tyr Asp Leu Asn Val Asp
 275 280 285
 Leu Leu Asp Val His Ala Asp Lys Ser Thr Phe His Arg Phe Asp Lys
 290 295 300
 Phe Asn Leu Lys Tyr Asn Pro Cys Gly Gln Ser Arg Leu Arg Glu Ile
 305 310 315 320
 Phe Leu Lys Gln Asp Asn Leu Ile Gln Gly Arg Phe Leu Ala Glu Leu
 325 330 335
 Thr Lys Glu Val Phe Ser Asp Leu Glu Ala Ser Lys Tyr Gln Met Ala
 340 345 350
 Glu Tyr Arg Ile Ser Ile Tyr Gly Arg Lys Lys Ser Glu Trp Asp Gln
 355 360 365
 Met Ala Ser Trp Ile Val Asn Asn Glu Leu Tyr Ser Glu Asn Val Val
 370 375 380
 Trp Leu Ile Gln Ile Pro Arg Ile Tyr Asn Val Tyr Arg Glu Met Gly
 385 390 395 400
 Thr Ile Asn Ser Phe Gln Asn Leu Leu Asp Asn Ile Phe Leu Pro Leu
 405 410 415
 Phe Glu Val Thr Val Asp Pro Ala Ser His Pro Gln Leu His Val Phe
 420 425 430
 Leu Gln Gln Val Val Gly Leu Asp Leu Val Asp Asp Glu Ser Lys Pro
 435 440 445
 Glu Arg Arg Pro Thr Lys His Met Pro Thr Pro Glu Gln Trp Thr Asn
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 Lys Leu Arg Pro His Cys Gly Glu Ala Gly Asp Ile Asp His Leu Ala
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 Ala Ala Phe Leu Thr Ser His Asn Ile Ala His Gly Val Asn Leu Lys
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 Lys Ser Pro Val Leu Gln Tyr Leu Tyr Tyr Leu Ala Gln Ile Gly Leu
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 Asn Pro Phe Pro Thr Phe Phe Leu Arg Gly Leu Asn Val Ser Leu Ser

565

570

575

Thr Asp Asp Pro Leu Gln Ile His Leu Thr Lys Glu Pro Leu Val Glu
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Glu Tyr Ser Ile Ala Ala Ser Leu Trp Lys Leu Ser Ser Cys Asp Leu
595 600 605

Cys Glu Ile Ala Arg Asn Ser Val Tyr Gln Ser Gly Phe Ser His Arg
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Leu Lys Ser His Trp Ile Gly Arg Asn Tyr Tyr Lys Arg Gly His Asp
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Gly Asn Asp Ile His Gln Thr Asn Val Pro His Ile Arg Ile Glu Phe
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Arg His Thr Ile Trp Lys Glu Glu Met Glu Leu Ile His Leu Arg Asn
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Val Asp Ile Pro Glu Glu Ile Asp Arg
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<211> 2482

<212> DNA

<213> Glycine max

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 <212> PRT
 <213> Glycine max

<400> 18

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Gln Met Ala Ile Thr Pro Ser Met Ile Arg Ser His Ser Val Ser Gly
      35              40              45

Asp Leu His Gly Val Gln Pro Asp Pro Ile Ala Ala Asp Ile Leu Arg
  50              55              60

Lys Glu Pro Glu His Glu Thr Phe Thr Arg Leu Arg Ile Thr Pro Leu
  65              70              75              80

Glu Ala Pro Ser Pro Asp Glu Ile Glu Ala Tyr Val Val Leu Gln Glu
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Cys Leu Glu Met Arg Lys Arg Tyr Val Phe Arg Glu Ala Val Ala Pro
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Trp Asp Lys Glu Val Ile Ser Asp Pro Ser Thr Pro Lys Pro Asn Pro
  115              120              125

Asp Pro Phe Leu Tyr Ile Pro Glu Gly Asn Ser Asp His Tyr Phe Glu
  130              135              140

Met Gln Asp Gly Val Ile Arg Val Tyr Pro Asp Arg Asp Ala Lys Glu
  145              150              155              160

Glu Leu Phe Pro Val Ala Asp Ala Thr Thr Phe Phe Thr Asp Leu His
  165              170              175

His Leu Leu Arg Val Ile Ala Ala Gly Asn Ile Arg Thr Leu Cys His
  180              185              190

His Arg Leu Asn Leu Leu Glu Gln Lys Phe Asn Leu His Leu Met Leu
  195              200              205

Asn Ala Asp Arg Glu Phe Leu Ala Gln Lys Ser Ala Pro His Arg Asp
  210              215              220

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Phe	Tyr	Asn	Val	Arg	Lys	Val	Asp	Thr	His	Val	His	His	Ser	Ala	Cys	
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				245					250					255		
Glu	Pro	Asp	Glu	Val	Val	Ile	Phe	Arg	Asp	Gly	Thr	Tyr	Leu	Thr	Leu	
			260					265					270			
Glu	Glu	Val	Phe	Lys	Ser	Leu	Asp	Leu	Ser	Gly	Tyr	Asp	Leu	Asn	Val	
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Lys	Phe	Asn	Leu	Lys	Tyr	Asn	Pro	Cys	Gly	Gln	Ser	Arg	Leu	Arg	Glu	
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Val	Trp	Leu	Ile	Gln	Leu	Pro	Arg	Leu	Tyr	Asn	Val	Tyr	Lys	Glu	Met	
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Phe	Leu	Lys	Gln	Val	Val	Gly	Leu	Asp	Leu	Val	Asp	Asp	Glu	Ser	Lys	
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Asn	Leu	Tyr	Thr	Leu	Asn	Lys	Leu	Arg	Glu	Ser	Lys	Gly	Met	Thr	Thr	
				485					490					495		
Ile	Lys	Phe	Arg	Pro	His	Ser	Gly	Glu	Ala	Gly	Asp	Ile	Asp	His	Leu	
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545

550

555

560

Arg Asn Pro Phe Pro Met Phe Phe Leu Arg Gly Leu Asn Val Ser Leu
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Ser Thr Asp Asp Pro Leu Gln Ile His Leu Thr Lys Glu Pro Leu Val
580 585 590

Glu Glu Tyr
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<210> 19

<211> 1988

<212> DNA

<213> Triticum aestivum

<400> 19

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<211> 345

<212> PRT

<213> Triticum aestivum

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Leu Ala Ser Trp Ile Val Asn Asn Glu Leu Tyr Ser Glu Asn Val Val	35	40	45
Trp Leu Ile Gln Ile Pro Arg Leu Tyr Asn Val Tyr Gln Gln Met Gly	50	55	60
Ile Val Thr Ser Phe Gln Asn Leu Leu Asp Asn Ile Phe Leu Pro Leu	65	70	75
Phe Glu Val Thr Ile Asp Pro Ala Ser His Pro Gln Leu His Val Phe	85	90	95
Leu Lys Gln Val Val Gly Leu Asp Leu Val Asp Asp Glu Ser Lys Pro	100	105	110
Glu Arg Arg Pro Thr Lys His Met Pro Thr Pro Glu Glu Trp Thr Asn	115	120	125
Val Phe Asn Pro Ala Phe Ser Tyr Tyr Ala Tyr Tyr Cys Tyr Ala Asn	130	135	140
Leu Tyr Thr Leu Asn Lys Leu Arg Glu Ser Lys Gly Met Asn Thr Ile	145	150	155
Lys Phe Arg Pro His Ala Gly Glu Ala Gly Asp Val Asp His Leu Ala	165	170	175
Ala Thr Phe Leu Leu Cys His Ser Ile Ser His Gly Ile Asn Leu Arg	180	185	190
Lys Ser Pro Val Leu Gln Tyr Leu Tyr Tyr Leu Gly Gln Ile Gly Leu	195	200	205
Ala Met Ser Pro Leu Ser Asn Asn Ser Leu Phe Leu Asp Tyr His Arg	210	215	220
Asn Pro Phe Pro Met Phe Phe Gln Arg Gly Leu Asn Val Ser Leu Ser	225	230	235
Thr Asp Asp Pro Leu Gln Ile His Leu Thr Lys Glu Pro Leu Val Glu	245	250	255
Glu Tyr Ser Ile Ala Ala Ser Leu Trp Lys Leu Ser Ser Cys Asp Leu	260	265	270
Cys Glu Ile Ala Arg Asn Ser Val Tyr Gln Ser Gly Phe Ser His Ala	275	280	285
Leu Lys Ala His Trp Ile Gly Lys Asn Tyr Tyr Lys Arg Gly Pro Ser	290	295	300
Gly Asn Asp Ile His Arg Thr Asn Val Pro Thr Ile Arg Ile Glu Phe	305	310	315
Arg Asp Leu Ile Trp Arg Asp Glu Met Gln Leu Val Tyr Leu Asn Asn	325	330	335

Val Ile Leu Pro Asp Glu Val Asp Gln
340 345

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<212> DNA
<213> Glycine max

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35 40 45
Ala Ser Phe Lys Ser Pro Gln Glu Leu Glu Ser Arg Tyr Glu Arg Phe
50 55 60
Thr Ser Leu Asn Asp Phe Leu His Tyr Tyr Tyr Ile Gly Met Ser Val
65 70 75 80
Leu Ile Asn Pro Ala Asp Tyr Glu Ser Leu Ala Tyr Glu Tyr Leu Thr
85 90 95

Lys Ala Asn Arg Asp Gly Val His His Ala Glu Ile Phe Phe Asp Pro
100 105 110

Gln Ala His Thr Glu Arg Gly Ile Ala Tyr Asn Thr Val Val Glu Gly
115 120 125

Leu Ser Ala Gly Leu Lys Arg Ala Glu Lys Asp Phe Gly Ile Thr Ser
130 135 140

Lys Leu Ile Leu Cys Phe Leu Arg His Leu Ser Ala Glu Asp Ala Lys
145 150 155 160

Thr Thr Tyr Gln Glu Ala Val Ser Leu Gly His Phe Ser Asn Gly Thr
165 170 175

Val Ala Ala Ile Gly Leu Asp Ser Ser Glu Val Gly Phe Pro Pro Glu
180 185 190

Ile Phe Arg Glu Ile Tyr Glu Ser Ala Glu Thr Lys Gly Ile His Arg
195 200 205

Thr Ala His Ala Gly Glu Glu Gly Asp Thr Ser Tyr Ile Ser Arg Ala
210 215 220

Leu Asp Ile Cys Lys Val Glu Arg Ile Asp His Gly Ile Arg Leu Ala
225 230 235 240

Glu Asp Glu Asn Leu Leu Lys Arg Val Ala Glu Gln Gly Thr Met Leu
245 250 255

Thr Val Cys Pro Leu Ser Asn Val Arg Leu Arg Cys Val Glu Asn Val
260 265 270

Gly Gln Leu Pro Ile Arg Lys Phe Leu Asp Gly Gly Ile Lys Phe Ser
275 280 285

Ile Asn Ser Asp Asp Pro Ala Tyr Phe Gly Gly Tyr Ile Leu Asp Asn
290 295 300

Tyr Leu Ala Val Gln Glu Ala Phe Gly Leu Asn Leu Lys Glu Trp Lys
305 310 315 320

Tyr Ile Ala Thr Ser Ala Ile Glu Gly Ser Trp Cys Asp Asp Glu Arg
325 330 335

Lys Ala Val Leu Leu Ser Lys Val Asp Ala Cys Ala Lys Lys Tyr Glu
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Ala Leu Leu
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<210> 23

<211> 600

<212> PRT

<213> Arabidopsis thaliana

<400> 23

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Thr	Val	Ala	Pro	Trp	Glu	Lys	Glu	Val	Ile	Ser	Asp	Pro	Ser	Thr	Pro	
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Lys	Pro	Asn	Thr	Glu	Pro	Phe	Ala	His	Tyr	Pro	Gln	Gly	Lys	Ser	Asp	
	50					55					60					
His	Cys	Phe	Glu	Met	Gln	Asp	Gly	Val	Val	His	Val	Phe	Ala	Asn	Lys	
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Asp	Ala	Lys	Glu	Asp	Leu	Phe	Pro	Val	Ala	Asp	Ala	Thr	Ala	Phe	Phe	
				85					90					95		
Thr	Asp	Leu	His	His	Val	Leu	Lys	Val	Ile	Ala	Ala	Gly	Asn	Ile	Arg	
		100						105					110			
Thr	Leu	Cys	His	Arg	Arg	Leu	Val	Leu	Leu	Glu	Gln	Lys	Phe	Asn	Leu	
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His	Leu	Met	Leu	Asn	Ala	Asp	Lys	Glu	Phe	Leu	Ala	Gln	Lys	Ser	Ala	
	130					135					140					
Pro	His	Arg	Asp	Phe	Tyr	Asn	Val	Arg	Lys	Val	Asp	Thr	His	Val	His	
	145				150					155					160	
His	Ser	Ala	Cys	Met	Asn	Gln	Lys	His	Leu	Leu	Arg	Phe	Ile	Lys	Ser	
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Lys	Leu	Arg	Lys	Glu	Pro	Asp	Glu	Val	Val	Ile	Phe	Arg	Asp	Gly	Thr	
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Tyr	Leu	Thr	Leu	Arg	Glu	Val	Phe	Glu	Ser	Leu	Asp	Leu	Thr	Gly	Tyr	
		195					200					205				
Asp	Leu	Asn	Val	Asp	Leu	Leu	Asp	Val	His	Ala	Asp	Lys	Ser	Thr	Phe	
	210					215					220					
His	Arg	Phe	Asp	Lys	Phe	Asn	Leu	Lys	Tyr	Asn	Pro	Cys	Gly	Gln	Ser	
	225				230					235					240	
Arg	Leu	Arg	Glu	Ile	Phe	Leu	Lys	Gln	Asp	Asn	Leu	Ile	Gln	Gly	Arg	
				245					250					255		
Phe	Leu	Gly	Glu	Ile	Thr	Lys	Gln	Val	Phe	Ser	Asp	Leu	Glu	Ala	Ser	
			260					265					270			
Lys	Tyr	Gln	Met	Ala	Glu	Tyr	Arg	Ile	Ser	Ile	Tyr	Gly	Arg	Lys	Met	
		275					280					285				
Ser	Glu	Trp	Asp	Gln	Leu	Ala	Ser	Trp	Ile	Val	Asn	Asn	Asp	Leu	Tyr	
	290					295					300					
Ser	Glu	Asn	Val	Val	Trp	Leu	Ile	Gln	Leu	Pro	Arg	Leu	Tyr	Asn	Ile	
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Tyr	Lys	Asp	Met	Gly	Ile	Val	Thr	Ser	Phe	Gln	Asn	Ile	Leu	Asp	Asn	
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Ile Phe Ile Pro Leu Phe Glu Ala Thr Val Asp Pro Asp Ser His Pro
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 Gln Leu His Val Phe Leu Lys Gln Val Val Gly Phe Asp Leu Val Asp
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 Asp Glu Ser Lys Pro Glu Arg Arg Pro Thr Lys His Met Pro Thr Pro
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 Ala Gln Trp Thr Asn Ala Phe Asn Pro Ala Phe Ser Tyr Tyr Val Tyr
 385 390 395 400
 Tyr Cys Tyr Ala Asn Leu Tyr Val Leu Asn Lys Leu Arg Glu Ser Lys
 405 410 415
 Gly Met Thr Thr Ile Thr Leu Arg Pro His Ser Gly Glu Ala Gly Asp
 420 425 430
 Ile Asp His Leu Ala Ala Thr Phe Leu Thr Cys His Ser Ile Ala His
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 Gly Ile Asn Leu Arg Lys Ser Pro Val Leu Gln Tyr Leu Tyr Tyr Leu
 450 455 460
 Ala Gln Ile Gly Leu Ala Met Ser Pro Leu Ser Asn Asn Ser Leu Phe
 465 470 475 480
 Leu Asp Tyr His Arg Asn Pro Phe Pro Val Phe Phe Leu Arg Gly Leu
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 Asn Val Ser Leu Ser Thr Asp Asp Pro Leu Gln Ile His Leu Thr Lys
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 Glu Pro Leu Val Glu Glu Tyr Ser Ile Ala Ala Ser Val Trp Lys Leu
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 Ser Ala Cys Asp Leu Cys Glu Ile Ala Arg Asn Ser Val Tyr Gln Ser
 530 535 540
 Gly Phe Ser His Ala Leu Lys Ser His Trp Ile Gly Lys Asp Tyr Tyr
 545 550 555 560
 Lys Arg Gly Pro Asp Gly Asn Asp Ile His Lys Thr Asn Val Pro His
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 Phe Thr Gln Val Asn Phe Ser Leu
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Ile	Ser	Leu	Pro	Ala	Gln	Ser	Leu	Glu	Thr	Leu	Ile	Pro	His	Val	Gln	
		35					40					45				
Val	Ile	Ala	Asn	Glu	Pro	Asp	Leu	Val	Ser	Phe	Leu	Thr	Lys	Leu	Asp	
	50					55					60					
Trp	Gly	Val	Lys	Val	Leu	Ala	Ser	Leu	Asp	Ala	Cys	Arg	Arg	Val	Ala	
65					70					75					80	
Phe	Glu	Asn	Ile	Glu	Asp	Ala	Ala	Arg	His	Gly	Leu	His	Tyr	Val	Glu	
			85						90					95		
Leu	Arg	Phe	Ser	Pro	Gly	Tyr	Met	Ala	Met	Ala	His	Gln	Leu	Pro	Val	
			100					105					110			
Ala	Gly	Val	Val	Glu	Ala	Val	Ile	Asp	Gly	Val	Arg	Glu	Gly	Cys	Arg	
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Thr	Phe	Gly	Val	Gln	Ala	Lys	Leu	Ile	Gly	Ile	Met	Ser	Arg	Thr	Phe	
	130					135					140					
Gly	Glu	Ala	Ala	Cys	Gln	Gln	Glu	Leu	Glu	Ala	Phe	Leu	Ala	His	Arg	
145					150					155					160	
Asp	Gln	Ile	Thr	Ala	Leu	Asp	Leu	Ala	Gly	Asp	Glu	Leu	Gly	Phe	Pro	
				165					170					175		
Gly	Ser	Leu	Phe	Leu	Ser	His	Phe	Asn	Arg	Ala	Arg	Asp	Ala	Gly	Trp	
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His	Ile	Thr	Val	His	Ala	Gly	Glu	Ala	Ala	Gly	Pro	Glu	Ser	Ile	Trp	
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Gln	Ala	Ile	Arg	Glu	Leu	Gly	Ala	Glu	Arg	Ile	Gly	His	Gly	Val	Lys	
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Ala	Ile	Glu	Asp	Arg	Ala	Leu	Met	Asp	Phe	Leu	Ala	Glu	Gln	Gln	Ile	
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		260						265					270			
Ala	Ser	Ile	Asn	Thr	Asp	Asp	Pro	Gly	Val	Gln	Gly	Val	Asp	Ile	Ile	
		275					280					285				
His	Glu	Tyr	Thr	Val	Ala	Ala	Pro	Ala	Ala	Gly	Leu	Ser	Arg	Glu	Gln	
	290					295					300					
Ile	Arg	Gln	Ala	Gln	Ile	Asn	Gly	Leu	Glu	Met	Ala	Phe	Leu	Ser	Ala	
305					310					315					320	
Glu	Glu	Lys	Arg	Ala	Leu	Arg	Glu	Lys	Val	Ala	Ala	Lys				
				325						330						